

IN THE CLAIMS

1 - 16. (Cancelled).

17. (New) A method of performing a retrogression heat treatment process on a workpiece comprising the steps of:

- (a) providing a workpiece having a first portion and a second portion; and
- (b) performing a retrogression heat treatment process on the workpiece in a continuous and longitudinal manner from the first portion of the workpiece to the second portion of the workpiece.

18. The method defined in Claim 17 wherein said step (a) is performed by providing the workpiece having a first end and a second end, and wherein said step (b) is performed by performing the retrogression heat treatment process on the workpiece in a continuous and longitudinal manner from the first end of the workpiece to the second end of the workpiece.

19. The method defined in Claim 17 wherein said step (b) is performed by providing an inductive heating coil and a quenching ring and by moving the workpiece relative to the inductive heating coil and the quenching ring.

20. The method defined in Claim 19 wherein said step (b) is performed by providing the inductive heating coil and the quenching ring adjacent to one another.

21. The method defined in Claim 19 wherein said step (b) is performed while the workpiece is oriented vertically.

22. The method defined in Claim 21 wherein said step (b) is performed by suspending the workpiece vertically by an upper end and moving the workpiece relative to an inductive heating coil and a quenching ring.

23. The method defined in Claim 22 wherein said step (b) is performed by moving the workpiece downwardly through the inductive heating coil and the quenching ring.

24. The method defined in Claim 21 wherein said step (b) is performed by supporting the workpiece vertically by a lower end and moving the workpiece relative to an inductive heating coil and a quenching ring.

25. The method defined in Claim 22 wherein said step (b) is performed by moving the workpiece upwardly through the inductive heating coil and the quenching ring.

26. The method defined in Claim 21 wherein said step (b) is performed by initially suspending the workpiece vertically by an upper end and moving the workpiece relative to an inductive heating coil and a quenching ring, and by subsequently supporting the workpiece vertically by a lower end and moving the workpiece further relative to the inductive heating coil and the quenching ring.

27. The method defined in Claim 26 wherein said step (b) is performed by moving the workpiece downwardly through the inductive heating coil and the quenching ring.

28. The method defined in Claim 26 wherein said step (b) is performed by moving the workpiece upwardly through the inductive heating coil and the quenching ring.

29. The method defined in Claim 17 including a further step (c) of deforming the scanned portion of the workpiece while the scanned portion of the workpiece remains softened.